DOCUMENT RESUME

ED 350 036 JC 920 487

AUTHOR Rapp, Adrian; Dodgen, Lynda
TITLE Shooting Research from the H.I.P.P.S. and Making a Killing for Ourselves.
PUB DATE May 92
NOTE 15p.; Paper presented at the Annual International Conference of the National Institute for Staff and Organizational Development on Teaching Excellence and Conference of Administrators (14th, Austin, TX, May 24-27, 1992).
PUB TYPE Reports - Descriptive (141) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Community Colleges; Cooperation; *Critical Thinking; Instructional Materials; Research Assistants; *Research Methodology; *Research Skills; Research Tools; Resource Materials; Social Science Research; Sociology; Student Participation; *Student Research; *Teaching Methods; Two Year Colleges; Two Year College Students; *Writing (Composition); Writing Skills
IDENTIFIERS *HIPPS Method; North Harris College TX

ABSTRACT

Utilizing the HIPPS (Hypothesis, Involvement, Participation, Practice, and Sharing) method in community college social science courses provides students with the opportunity to develop research, critical thinking, and writing skills. The HIPPS method includes the following stages: (1) Hypothesis Formation by Students, in which the professor poses a problem and assigns students to groups of approximately six individuals who seek out background information, and form distinct, but interrelated hypotheses; (2) Involvement of Students in Gathering Data, in which students explore methods of data collection, such as the composition, distribution, and utilization of questionnaires, and the use of sampling; (3) Participation of Students in Table Formation and Data Analysis, in which the student groups meet with the instructor for more focused and personalized lessons in data analysis and data table construction; (4) Practical Practice in Writing Summaries, Conclusions, and Reports, in which students write what they consider to be appropriate interpretations of their data; and (5) Sharing Information with the Class, in which each group presents findings to the class after the instructor has consolidated all of the reports. Secondary benefits of the HIPPS approach include students' developing a sense of community, and instructors' receiving valuable assistance in conducting their research. Sample class handouts and assignments on retrieving and interpreting articles from professional journals, types of sampling, questionnaires, table construction, and measures of central tendency, are provided. (MAB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED350036

Shooting Research From the H.I.P.P.S. and Making a Killing For Ourselves

by

Adrian Rapp
Lynda Dodgen

North Harris College
2700 W.W. Thorne Drive
Houston, Texas 77073

Phone: 713-443-5525
Phone: 713-443-5536
Fax: 713-443-5402

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

A. Rapp

L. Dodgen

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☒ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Paper presented at the Annual International Conference of the National Institute for Staff and Organizational Development on Teaching Excellence and Conference of Administrators (14th, Austin, TX, May 24-27, 1992).

JC 920 487

BEST COPY AVAILABLE

Shooting Research From The H.I.P.P.S. and Making a Killing For Ourselves

H = hypothesis formation by students

I = involvement of students in gathering data

P = participation of students in table formation and data analysis

P = practical practice in writing summaries, conclusions and reports

S = sharing information with the class

Using the method "shooting research from the H.I.P.P.S." provides students with active learning of the research procedure thereby increasing retention; giving the students an opportunity to learn, utilize, and practice critical thinking skills that tend to be neglected in introductory courses; and insuring an exercise in writing across the curriculum which improves technical, and perhaps creative, writing skills.

There are two latent functions of this method. First, I find that classes who learn the research process via this method form groups; they develop a sense of community. The sense of community develops because students are assigned to groups of about six students in order to develop different areas of the topic and, in the process of solving a common problem, the individuals tend to develop friendships. Since each of these groups are working on similar but yet different aspects of the same assignment, they tend to establish mutual assistance networks; problem solving between groups becomes common. Second, I, as instructor, receive a boost for my own research.

H = hypothesis formation by students

The basic problem is presented to the students by the instructor. The project this year is on collecting, more specifically on behavioral and attitudinal differences among people depending on whether they felt their collectible was monetarily valuable or not. Any topic of interest to the instructor could be used. Or perhaps the students could submit ideas and from these ideas a topic could be selected by the instructor.

The second step of hypothesis formation is background information. Students, in their assigned groups, are given a library assignment to get at least one journal article on some aspect of the topic, preferably a scientific article. An assignment sheet is given to them to complete this assignment. This assignment includes identifying the hypothesis, labeling the independent and dependent variables, stating the operational definitions, determining the research design, and briefly discussing the findings. This assignment not only gives the student information on the problem in question, but gives a good overview of the scientific method.

The third step is the actual hypothesis formation for the stated problem. Based on the information the classes have found in the library and from the narrowed down problem given each group, the groups work on hypotheses. This includes identifying independent and dependent variables and constructing operational definitions. The instructor consolidates this information and writes the questionnaire.

I = involvement of students in gathering data

After the questionnaire is written, it is discussed with the students in order to present different types of questions, such as structured and unstructured, and to give the student insight into operational definitions. The students are then given three questionnaires to give to someone not in their family group or attending their college. At this time a short discussion of sampling is given. It is very easy to examine the differences between random and nonrandom samples and to give an overview of sampling at this stage of the method.

P = participation of students in table formation and data analysis

After the questionnaires are completed, each group of students comes into the office in order to analyze the data on their questionnaire and to put the data in the form necessary to be analyzed. An appointment is set up with group and instructor in order to accomplish this task. We work as a group and it is fun! This is a very good chance for instructors to really get to know the students in their class because of the informal nature of the interaction.

After all the groups have consolidated the information from the questionnaire, the instructor gives a short lecture on table construction and calculating percentages and means. The students are then turned loose on their data analysis. They meet in their groups in order to construct their tables and calculate percentages. If they need help, they can contact the instructor.

P = practical practice in writing summaries, conclusions, and reports

After the students have developed their tables, they write what they feel can be concluded from their data and what they feel is the best interpretation for their data.

S = sharing information with the class

At the end of the semester, the instructor consolidates all the reports, and each group shares their information with the rest of the class.

Through this learning process, I have increased my bibliography, developed bibliography abstracts (which sometimes gave me enough information that I did not need to read the article!), helped me with the time consuming table formations, and given me some new ideas that had not occurred to me when I looked at the data. The students like the involvement and I like the results -- shooting from the H.I.P.P.S makes a "killing" for everyone.

Bibliograph

Bailey, Kenneth. Methods of Social Research. New York: The Free Press, 1978.

Katzer, Jeffrey, Kenneth H. Cook, and Wayne W. Crouch. Evaluating Information: A Guide For Users Of Social Science Research. New York: McGraw-Hill. 1991.

Riley, Matilda. Sociological Research II: Exercises and Manual. New York: Harcourt, Brace and World, 1963.

REPORT FROM A PROFESSIONAL JOURNAL

Purpose

This assignment should enable you to become acquainted with some of the research in which sociologists are currently engaged. Their work is so diverse that you will find articles to interest you whatever your particular interest may be. Furthermore, this exercise will help you to become more familiar with the LRC.

Directions

Select an article which interests you from one of the journals listed below. Be careful to select a **research report**, not a case study, descriptive study, or theoretical discussion. Make a synopsis of the article by **following the outline** provided below.

Journals

*American Behavioral Scientist
*American Journal of Economics and Sociology
*American Journal of Sociology
*American Sociological Review
*Annals of the American Academy of Political and Social Science
*Breakthrough
*Black Enterprise
*Community College Social Science Quarterly
*Contemporary Sociology
*Journal of Marriage and the Family
*Journal of Social Issues
*Journal of Social Psychology
*Social Science and Humanities Index
*Sociology and Social Research
*Social Science Quarterly
*Society

I. **Source**: From what journal is the article taken? Who is the author? Use the following bibliographical form: Albert, Mayer, and Harry Sharp, "Religious Preference and Worldly Success," American Sociological Review, 27 (April, 1972), pp. 218-227. (6 points)

II. **Hypothesis**: a) What is the author trying to prove? b) What is the independent variable? c) What is the dependent variable? d) State your hypothesis in an "If...., then" format. e) How did the authors define their variables? Give the operational definitions. (10 points)

III. **Research design**: Did the researcher use an experiment, participant observation, survey, or unobtrusive measure. Why do you feel your chosen article is this research design? (10 points)

IV. **Sample**: a) Who is or what is the subjects or objects of the study? b) How is the sample selected? c) Is the sample random or non-random? d) Support your answers. (8 points)

V. **Observations**: What is the results of the data gathering and analysis? I.e. What means, percentages, correlations or other information are obtained? (8 points)

VI. **Conclusions**: Is the hypothesis accepted? Rejected? Modified? Is the purpose of the investigation fulfilled? (8 points)

Rapp/Dodgen

Sampling and Different Types of Samples

A population is all possible observations or units that could be used in a study. The researcher defines the population. If the total group can not be studied, a sample is drawn to represent the entire population.

Due to a lack of time, energy, and economic resources, it is not possible in most cases to utilize all of the population, therefore, a sample must be used. A sample is a selection, hopefully representative, of the total population that the researcher wishes to study.

There are two basic classifications of samples, random and nonrandom samples.

A random sample has several characteristics:

1. the total population must be listed
2. each observation or unit has an equal chance of being included in the sample
3. a statement of probability can be given for the odds of any given observation or unit being selected

There are several types of random samples.

1. A simple random sample is based on a table of random numbers. Every unit or observation of the population is given a number, and random numbers are selected and matched with the list. These cases are included in the sample.
2. A systematic sample is a sample in which every kth case is selected after a random start, where k is any constant.
3. A stratified sample is a sample in which the population is first divided into strata, then sampling is conducted within each strata.
4. A cluster sample is conducted in several stages. In the first stage a cluster of observations or units is sampled; then from these initial clusters, the actual sample of observations or units is selected.

A nonrandom sample does not meet the qualifications of a random sample. Any sample that does not meet the criteria can not be considered a random sample.

There are several types of nonrandom samples

1. snowball: a nonrandom sample in which observations or units initially chosen for the sample are used as informants to locate other persons having necessary characteristics that make them eligible for the sample
2. convenience: a nonrandom sample in which the most convenient and most readily available observations or units are chosen for the study.
3. quota: the nonprobability sampling equivalent of stratified sampling; The necessary strata are first

selected, then a specific quota of observations or units is taken from each strata.

4. purposive: a nonprobability sampling procedure in which the researcher uses his or her judgment to select those observations or units that best meet the needs of the study.

Worksheet

How could we do this research using each of the different types of samples?

1. A simple random sample:

2. A systematic sample:

3. A stratified sample:

4. A cluster sample:

5. snowball sample:

6. convenience sample:

7. quota sample:

8. purposive sample:

Rapp/Dodgen

Questionnaires

Problems in question formation:

1. double-barreled questions
2. ambiguous questions
3. level of wording
4. abstract or factual questions
5. leading questions
6. question order

Open and Closed Response Categories

Closed-ended questions

1. advantages
   a. the answers are standard and can be compared from person to person
   b. the answers are much easier to code and analyze
   c. the respondent is often clearer about the meaning of the question
   d. the answers are relatively complete thus cutting down on irrelevant responses
   e. threatening information such as income easier to tap
2. disadvantages
   a. easier for respondent to guess
   b. the respondent may feel frustration because his response is not there
   c. there may be too many answer categories to print on the questionnaire
   d. differences in interpretation of what was meant by the question may go undetected
   e. variations in answers among the different respondents may be eliminated
   f. more likely for clerical error, i.e. circling the wrong response

Open-ended questions

1. should be used for complex questions that cannot be answered in a few simple responses
2. are more difficult to code
3. are more difficult and time consuming for respondent to complete thus more will likely refuse
4. are necessary if categories of responses are unknown
5. are good for clarification of information

Look at the questionnaire.

1. Identify the closed-ended questions:

2. Identify the open-ended questions:

Rapp/Dodgen

Table Construction

Title of Table: _____

Dependent variable:	Independent variable:
total	

1. What is the independent variable? Record it on your dummy table.
2. What are the categories for your independent variable? Record categories on the dummy table. These should be clearly labeled, indicating which question is used. Divide the table so that each column is wide enough for tallies, frequency entries and percentages.
3. What is the dependent variable? Record on your table.
4. What are the categories for your dependent variable? Record them on the dummy table. These should be clearly labeled. Indicate which question is used. Sufficient space should be left under each heading to allow separate tabulations.
5. Tabulate the information from the code sheets onto the dummy table. Sort the code sheets into piles according to the breakdown headings across the top of the dummy table. Then sort the code sheets according to the breakdown of headings along the side of the dummy table. Count each pile of code sheets and record into the appropriate cell.
6. Add each column of the dummy table. Record in the appropriate space as indicated on the dummy table.

Rapp/Dodgen

7. Add all of the columns. Does it equal the N size as designated by your instructor?
8. Calculate the percentage for each cell. The percentage equals the cell total divided by the column total. Check your math to make sure that each column adds to 100%. Percentages provide a means of simplifying numbers which are hard to read and facilitating comparisons among sets of numbers.
9. Add the title to your dummy table. The title should indicate all variables used.
10. Put the names of the people in your group and the date on the back of your dummy table.
10. How do you interpret your table? What conclusions can you make based on the percentages that you have calculated?

Measures of Central Tendency

1. The Mode: The mode is defined as the value or category of the scale which occurs most frequently.

2. The Median: The median is defined as the score of the midmost individual or case in an ordered distribution of observations or units. The median is not affected by the actual values of extreme scores.

3. The Mean: The mean is the arithmetic average of all the scores in the distribution.